WHAT IS CLAIMED IS:

1. An apparatus for imaging particles comprising:

a flow cell through which a specimen containing particles to be analyzed is caused to flow;

an illumination source for illuminating an image capturing zone of the specimen in said flow cell;

an imaging optic;

image capturing means for capturing a still image of one or more of the particles of interest in the specimen; and

image processing means for executing desired data processing based upon a set of image data obtained from the image capturing means,

wherein images of the particles flowing through the flow cell are captured by the image capturing means and analyzed.

2. The apparatus of Claim 1, wherein the illumination source is a brightfield light source.

3. The apparatus of Claim 1, wherein the image capturing means comprises a digital camera.

4. The apparatus of Claim 1, wherein the flow cell is transparent.

5. The apparatus of Claim 1, wherein the flow cell comprises an inlet port, an imaging chamber, an absorbent wick, a first channel connecting the inlet port to the imaging chamber and a second channel connecting the imaging chamber to the absorbent wick.

6. The apparatus of Claim 1, further comprising an incident light source.

7. The apparatus of Claim 1, wherein the specimen flows through the flow cell without a sheath fluid.

8. The apparatus of Claim 1, wherein the specimen is selected from the group consisting of blood and urine.

9. The apparatus of Claim 1, wherein the specimen is a polymer, glass or crystalline bead.

10. The apparatus of Claim 1, wherein the imaging optic is a microscope.

11. A method of imaging particles comprising:

(a) introducing a specimen containing particles of interest into an inlet port of a flow cell;

(b) moving the specimen from the inlet port to an imaging chamber of the flow cell;

(c) interrogating at least one field of view of the imaging chamber;

(d) generating a still image for the at least one field of view; and then

(e) generating a response file for the at least one field of view.

12. The method of Claim 11, wherein each of steps (c) through (e) is repeated for each successive field of view.

13. The method of Claim 11, wherein the specimen flows through the flow cell without a sheath fluid.

14. The method of Claim 11, wherein the introducing step is carried out by injecting the sample into the inlet port using a syringe.

15. The method of Claim 11, wherein the moving step is carried out using a syringe.

16. The method of Claim 11, wherein the interrogating step comprises illuminating the at least one field of view.

17. The method of Claim 16, wherein a brightfield light source is used to illuminate the at least one field of view.

18. The method of Claim 11, wherein a digital camera is used to generate the still image.

19. The method of Claim 11, further comprising staining the particles prior to the introducing step.

20. The method of Claim 11, wherein the particles are cells.

21. The method of Claim 20, further comprising counting the particles from the response files.

22. The method of Claim 20, further comprising determining the DNA content of the particles from the response files.

23. The method of Claim 20, further comprising classifying the particles according to type from the response files.

24. The method of Claim 20, wherein the cells are blood cells.